CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Devil Mountain Limited Access Timber Sale
Proposed Implementation Date:	October 2007
Proponent:	Montana Department of Natural Resources and Conservation
Location:	T12N, R11W, Section 36 (8 miles NE of Drummond, MT)
County:	Powell County

I. TYPE AND PURPOSE OF ACTION

The Montana Department of Natural Resources and Conservation's Anaconda Unit is proposing to sell approximately 730 MBF of beetle-killed Lodgepole pine and a small amount of Douglas-fir sawlogs from approximately 85 acres.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

No formal scoping was initiated for this limited access timber sale. Notification was sent internally to resource specialists and externally to the Montana Department of Fish, Wildlife and Parks. Comments were received on September 21, 2007.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

DEQ – Air Quality, a burning permit would be required to complete slash treatment requirements.

3. ALTERNATIVES CONSIDERED:

Alternative A – No Action
Alternative B – Action (proposal)

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

No recent timber harvests have occurred on the state section and no existing impacts to the soil were identified. No unique geologic features of areas of slope instability were identified. Soils occurring in the proposed project area are largely Worock gravely loams and Whitecow gravelly loams. These soils series are very deep, well drained soils that formed in limestone colluvium. They are well suited for road construction and ground based timber harvest on gentle to moderate slopes. A small portion of the proposed road (first couple of hundred feet of the new construction on State land) is located on Bignell soils. Bignell soils are gravely clay loams that have lower bearing strength than the Worcock and Whitecow gravely loams. This portion of the road will likely be inoperable when wet and will have a shorter operating season.

Alternative A – No Change over existing conditions.

Alternative B – No fragile or unique soils are present. Areas within the harvest unit are generally less than 25% slope. Ground based skidding would be appropriate and there would be a low risk of negative impacts associated with the proposed action. No cumulative impacts are anticipated with the proposed action alternative.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

No stream channel or other water resources are present within the proposed harvest area. The project area is located within the Dry Cottonwood Creek drainage which is tributary to Cottonwood Creek. Cottonwood Creek flows to Douglas Creek, which flows into Nevada Creek and eventually into the Blackfoot River. A portion of Cottonwood Creek located approximately 4 miles downstream of the project area and downstream of the existing access road is on the Montana 303(d) list of impaired streams. However, this segment of stream is classified as 4C in the State's 2006 305(b) Report and under this classification a TMDL is not required because no pollutant-related beneficial use impairment has been identified.

The existing road access the project area is located on state, private and BLM ownership. Segments of this road do not meet BMPs and are located immediately adjacent to Dry Cottonwood Creek. Direct sediment delivery is occurring at some of these locations. The proposed project will include improvements to the existing road and mitigations measures designed to temporarily prevent or minimize the risk of additional sediment delivery from occurring during access and hauling of DNRC timber. These measures are not expected to bring the road up to BMP standards over the long-term.

Harvest of dead, dying and trees at high risk for mortality due to insect infestations is not expected to generate substantial levels of additional water yield than would be expected under no action.

There is moderate risk that low levels of sediment delivery would continue to occur from the existing road access road located on BLM and private land under the proposed action alternative. However, the proposed improvements and mitigation measures included in the action alternative are expected to temporary reduce or at least prevent DNRC use of this road from substantially increasing the risk or levels of sediment delivery from this road. Therefore no change of direct, indirect, or cumulative effects to water resources or downstream beneficial uses are anticipated with either alternative.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Alternative A – No Change

Alternative B – A minor amount of particulate would be produced during post harvest clean up. Burning would be done according to DEQ air quality regulations. A low risk of direct, indirect or cumulative effects would be anticipated with the proposed action.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

No rare plants or cover types have been identified within the project area. The section is entirely forested with no previous timber harvest.

Alternative A – The Mountain Pine Beetle would continue to run their course and mortality would be expected in the larger diameter trees. The stagnant smaller diameter trees would not likely release and grow to a larger size class. This condition would persist until a fire or other natural event occurred to re-initiate the stand.

Alternative B – The proposed action alternative would create an 85 acre opening with scattered clumps of Douglas-fir which would emulate a mixed severity fire, which likely occurred historically. Cumulative effects associated with the action alternative would be minor and temporary as the harvested area is expected to become fully stocked with regeneration within 5 years.

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8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Fisheries

Cottonwood Creek supports genetically pure populations of Westslope cutthroat trout. No fisheries data is available for Dry Cottonwood Creek. However, it is thought to provide a limited amount of seasonal habitat for Westslope cutthroat trout due to its intermittent flow regime. There are no streams located within the proposed harvest area or near new road locations. No direct, indirect or cumulative effects to downstream fisheries in Cottonwood Creek is expected to result from the proposed timber harvest or the proposed new road construction. . There is moderate risk that low levels of sediment delivery would continue to occur from the existing road access road located on BLM and private land under the proposed action alternative. However, the proposed improvements and mitigation measures included in the action alternative are expected to temporary reduce or at least prevent DNRC use of this road from substantially increasing the risk or levels of sediment delivery from this road. Therefore no change of direct, indirect, or cumulative effects of sediment delivery to the downstream cold-water fisheries is anticipated under either alternative.

Big Game

The area lies in spring/summer/fall habitat for elk and moose (FWP letter, September 21, 2007). Due to the elevation and proximity to open forage areas, the project area likely doesn't contain winter range. A course filter approach shows 640 acres of forested land within the state parcel. The parcel is also adjacent to the Bureau of Land Management's Hoodoo Mountain Wilderness Study Area. The largest harvest unit would be 80 acres and is mixed Lodgepole pine and Douglas-fir. Most Douglas-fir would be left within the harvest unit breaking up sight distance to some extent. The proposed action would likely provide a minor increase forage benefit within the parcel. Road access to the north is through a private ranch easement with little opportunity for general public use. A subdivision occurs to the south of the Parcel also creating limited opportunity for public use. Approximately 1 mile of new road construction would be needed to access the harvest unit and would be closed via earth berm or gate upon completion creating no new open road miles. Due to the proximity to the subdivision and ranch access, the harvest unit would not likely meet security cover for elk(Hillis et al) however, the harvest unit is adjacent to a large >1,000 acres block of likely security cover. As a result, there would likely be low risk of direct, indirect, and cumulative effects to big game as a result of the proposed action.

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9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Alternative A – No change in effects to species over existing conditions is anticipated.

Alternative B – During a course filter approach, the following species were considered but eliminated from detailed study due to lack of habitat present: Fisher, Harlequin Duck, Common Loon, Townsend's Big-eared Bat, Coeur d' Alene Salamander, Northern Bog Lemming, Mountain Plover.

T&E Species

Grizzly Bear

The project area is within mapped occupied grizzly bear habitat (Wittinger et al. 2002) thus there is a concern the proposed action would impact grizzly bears. The proposed action would harvest approximately 85 acres of largely beetle-killed lodgepole pine and construct approximately 1 mile of new road that would be closed to motorized vehicles post-harvest. There is currently .28 miles of road within the section. Post harvest, there

would be 1.28 miles of road. However, no increase in open road density would result from the proposed action. The harvest unit contains a mixture of Lodgepole pine and scattered Douglas-fir. Sight distance would be increased within the harvest units but most Douglas-fir would be left breaking up site distance to some extent until approximately 10 years when the lodgepole pine seedlings have become established on site. Because of the small scale on the landscape and the likely limited duration of the loss of cover there would likely be low risk of direct, indirect, or cumulative effects to grizzly bears as a result of the proposed action.

Gray Wolf

A newly documented pack, with little other information, has been identified within the vicinity (Mike McGrath, SWLO Biologist, pers. Comm.) and wolves are likely in the area. Should wolves be seen within the project area or a den or rendezvous site be located, a DNRC Biologist would be contacted to determine appropriate mitigations for implementation. Additionally, post-harvest, all newly constructed roads would be closed using effective road closures (locked gates, earth berms, etc.). Thus there would likely be a low risk of direct, indirect, or cumulative effects to gray wolves as a result of the proposed action.

Canada Lynx

DNRC Stand Level Inventory (SLI) identifies 345 acres of Lynx habitat (326 - Other; 10 - Temp Non-habitat; 9 – Mature foraging). The proposed harvest area would remove 80 acres of "Other" habitat. The proposed action is expected to regenerate within 10 years and would provide cover and forage for potential prey species such as snowshoe hares and grouse. As a result, there would likely be a low risk of direct, indirect, or cumulative effects to Lynx as a result of the proposed action.

Black-backed Woodpecker

There is concern that the proposed harvest activities would alter black-backed woodpecker habitat or provide unnecessary disturbance. The black-backed woodpecker is an irruptive species that forages opportunistically on outbreaks of wood boring beetles primarily in recently burned habitats, and to a lesser degree in unburned habitats. It is also considered to be a sensitive species in Montana. Although the black-backed woodpecker's nesting and foraging requirements are thought to be tightly linked with burned areas, it does nest and forage in unburned forest in response to insect outbreaks (Bull et al. 1986, Hutto 1995). As a result, diffuse populations of black-backed woodpeckers may inhabit this area, subsisting on insect outbreaks.

The proposed action may salvage harvest *Dendrocthonous* beetle-infested lodgepole pine on approximately 85 acres within the affected parcel. As a result, the proposed action would remove a potential food source for black-backed woodpeckers within the project area. However, there is likely several hundred acres of similarly affected habitat on the adjacent BLM Hoodoo Mountain Wilderness Study Area that could provide similar resources for this species. As a result, the proposed action would likely have low risk of direct and indirect effects, and minimal risk of cumulative effects to this species.

Columbian Sharp-tailed Grouse

There is concern that the proposed harvest activities could affect this species. One of two known populations of Columbian sharp-tailed grouse is known to reside in the vicinity south and west of Kleinschmidt and Browns Lakes, which are located approximately 15 miles north of the project area (Deeble 1996). Thus, the proposed action would have minimal risk of direct, indirect, or cumulative effects to this species.

Pileated Woodpecker

This species feeds primarily on carpenter ants and woodboring beetle larvae (Bull and Jackson 1995). The pileated woodpecker nests and roosts in larger diameter snags, typically in mature to old-growth forest stands (Bull et al. 1992, McClelland et al. 1979). Due primarily to its large size, pileated woodpeckers require nest snags averaging 29 inches dbh, but have been known to nest in snags as small as 15 inches dbh in Montana (McClelland 1979). Pairs of pileated woodpeckers excavate 2-3 snags for potential nesting sites each year (Bull and Jackson 1995). The primary prey of pileated woodpeckers, carpenter ants, tend to prefer western larch logs with a large end diameter greater than 20 inches (Torgersen and Bull 1995). Thus, pileated woodpeckers generally prefer western larch and ponderosa pine snags > 15 inches dbh for nesting and roosting, and would likely feed on downed larch logs with a large end diameter greater than 20 inches. However, they are also known to nest in aspen. There are approximately 30 acres of potential pileated woodpecker habitat (average stand dbh $\geq$ 15 inches, moderate or well-stocked sawtimber; SLI database) within the project area. The proposed action would not harvest any of those 30 acres. As a result, there would likely be low risk of direct,

indirect and cumulative effects to a few individuals of this species through potential increases in predation risk or displacement.

Flammulated Owl
The project area likely contains Flammulated Owl preferred habitat thus there is a concern Flammulated Owls may be impacted by the proposed action. The proposed action would open the stand and promote growth of understory shrub. As a result, insect production (prey for flammulated owls) may be enhanced post-harvest. Thus, there would be a low risk of direct, indirect, or cumulative effects to flammulated owls as a result of the proposed action because it may enhance habitat suitability while increasing foraging opportunities.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

DNRC Archaeologist, Patrick Rennie, was contacted. There are no records of historical or cultural resources on the site. If any are identified during timber sale activities, Patrick Rennie would be contacted for potential mitigations.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

No measurable impact is anticipated with either alternative.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No measurable impact is anticipated with either alternative.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

The BLM currently has an Environmental Assessment (Hoodoos EA) for Resource Management projects on their Hoodoo Mountains Resource area. The project is a combined timber sale and fire hazard mitigation project. The closest unit is approximately 5 miles to SE of the DNRC proposed project.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

No impacts are anticipated with either alternative.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Alternative A – No change over existing conditions.

Alternative B – The section is currently leased to the Mannix Ranch for 29 aum's. A minor increase may be expected as a result of the proposed project.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

This project will provide employment for one logging company through the duration of the harvest.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

No measurable change is anticipated with either alternative.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

None.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

This section has no legal public access. Recreational opportunities are limited to few and would not change with either alternative.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

No change is anticipated with either alternative.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

No change is anticipated with either alternative.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

Alternative A – No money would be generated and value of dead timber would be lost resulting in a net loss to the Common School Trust Fund.

Alternative B – Salvaging the beetle-killed timber would generate approximately $162,000 for the Common School Trust fund.

EA Checklist Prepared By:	**Name:**	Brian Robbins	**Date:**	9/12/2007
	Title:	Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

The action alternative which would salvage harvest approximately 730 mbf from 85 acres is the selected alternative.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant or un-acceptable impacts to Water, Soil, Fisheries, or Threatened, Endangered and Sensitive Species are likely to occur as a result of the proposed action.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Fred Staedler		
	Title:	Unit Manager		
Signature:	/s/ Fred Staedler		**Date**:	September 27, 2007